

body plac'd in that posture. The leggs were all much of the same make, being all of them cover'd with a strong hairy scale or shel, just like the legs of a Crabb or Lobster, and the contrivance of the joints seem'd much the same; each legg seem'd made up of eight parts, 1, 2, 3, 4, 5, 6, 7, 8, to the eighth or last of which, grew the soles and claws, described before in the 38. *Observation*.

Out of the upper part of this trunk grew the two wings, which I mention'd in the 38. *Observation*, consisting of a film, extended on certain small stiff wires or bones: these in a blue Fly, were much longer then the body, but in other kind of Flies they are of very differing proportions to the body. These films, in many Flies, were so thin, that, like several other plated bodies (mention'd in the ninth *Observation*) they afforded all varieties of fantastical or transient colours (the reason of which I have here endeavour'd to explain) they seem'd to receive their nourishment from the stalks or wires, which seem'd to be hollow, and neer the upper part of the wing LL several of them seem'd jointed, the shape of which will sufficiently appear by the black lines in the second Figure of the 26. *Scheme*, which is a delineation of one of those wings expanded directly to the eyes.

All the hinder part of its body is cover'd with a most curious blue shining armour, looking exactly like a polish'd piece of steel brought to that blue colour by annealing, all which armour is very thick bestuck with abundance of tapering bristles, such as grow on its back, as is visible enough by the Figure.

Nor was the inside of this creature less beautifull then its outside, for cutting off a part of the belly, and then viewing it, to see if I could discover any Vessels, such as are to be found in a greater Animals, and even in Snails exceeding manifestly, I found, much beyond my expectation, that there were abundance of branchings of Milk-white vessels, no less curious then the branchings of veins and arteries in bigger terrestrial Animals, in one of which, I found two notable branches, joining their two main stocks, as it were, into one common *ductus*; now, to what veins or arteries these Vessels were *analogus*, whether to the *vena porta*, or the *meseraick vessels*, or the like, or indeed, whether they were veins and arteries, or *vasa lactea*, properly so called, I am not hitherto able to determine, having not yet made sufficient enquiry; but in all particulars, there seems not to be any thing less of curious contrivance in these Insects, then in those larger terrestrial Animals, for I had never seen any more curious branchings of Vessels, then those I observ'd in two or three of these Flies thus opened.

It is a creature active and nimble, so as there are very few creatures like it, whether bigger or smaller, in so much, that it will scape and avoid a small body, though coming on it exceeding swiftly, and if it sees any thing approaching it, which it fears, it presently squats down, as it were, that it may be the more ready for its rise.

Nor is it less hardy in the Winter, then active in the Summer, induring all the Frosts, and surviving till the next Summer, notwithstanding the

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bitter cold of our Climate; nay, this creature will in and yet not be destroy'd, for I have taken one of them whereon it has been frozen almost white, with the Ice, by thawing it gently by the warmth of a fire, it has quitted itself as if it were new flown about.

This kind of Fly seems by the steams or taste of putrifying meat (which it often kisses, as 'twere, with its mouth over it) to be stimulated or excited to eject its Eggs, perhaps, from the same reason as Dogs, Cats, and many others are excited to their particular lusts, by the smell of things by Nature prepared for generation; the males seem to be excited by smells, or other incitations, to be as much necessary as *Aqua Regis* strongly impregnated with a solution of Gold, to precipitate it by the affusion of spirit of *Urine*, or a solution of *Tartar*.

One of these put in spirit of *Wine*, was very quickly killed, and both its eyes and mouth began to look very red, but I took it out, and suffering it to lie three or four hours, and then the Sun beams cast through a Burning-glass, it again revived, as it were, to have been all the intermediate time, but decaying after certain hours to grow fresh again and sober.

Observ. XLIII. Of the Water-Insect

This little creature, described in the first Figure of the 26. *Scheme*, was a small scaled or cruisted Animal, which I have observed to be generated in Rain-water; I have also observ'd it in River-water. It is suppos'd by some, to deduce its first birth from the putrification of Rain-water, in which, if it have stood any time, you shall seldom miss, all the Summer long, of store of them, too and fro.

'Tis a creature, wholly differing in shape from any I have seen, its motion less strange: It has a very large head, in proportion to its body, all covered with a shell, like other *testaceous* Animals, but differs in this, that it has, up and down several parts of its head, hairs, or bristles, plac'd in the order express'd in the Figure, horns, which seem'd almost like the horns of an Oxe, invulnerable, as I could ghes, were hollow, with tufts of bristles, likewise, as horns they could move easily this or that way, and might serve for their nostrils. It has a pretty large mouth, which seems like those of Crabs and Lobsters, by which, I have often observed it feed on water, or some imperceptible nutritive substance.

I could perceive, through the transparent shell, while it was liv'd, several motions in the head, thorax, and belly.

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